

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

KILGER et al.

Atty. Docket No. 101614-00020

Serial No.: To Be Assigned

Examiner: Horlick, Kenneth R.

Filed: December 10, 2003

Art Unit: 1637

For: METHOD FOR THE UNCOUPLED, DIRECT, EXPONENTIAL  
AMPLIFICATION AND SEQUENCING OF DNA MOLECULES  
WITH THE ADDITION OF A SECOND THERMOSTABLE DNA  
POLYMERASE AND ITS APPLICATION

**INFORMATION DISCLOSURE STATEMENT**

Director of the U.S. PTO  
P.O. Box 1450  
Alexandria, VA 22313-1450

Date: December 10, 2003

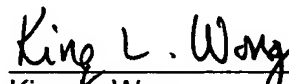
Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the information item(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each item(s) is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the item(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date, OR (b) before the mailing date of a first Office Action on the merits in the present application, OR (c) accompanies a Request for Continued Examination. No certification or fee is required.
- ☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
- ☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

- ☐ c. A check in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300 as needed to ensure consideration of the disclosed information.
- ☐ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Applicant(s) hereby petition(s) that the Information Disclosure Statement be considered. Attached is our check in the amount of \$180.00 in payment of the petition fee under 37 CFR §1.17(i)(1). Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300 as needed to ensure consideration of the disclosed information.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
- ☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).
- ☒ 4. The reference(s) was/were cited by or submitted to the Office in parent application No. 09/357,166, filed July 19, 1999, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these references are not attached. 37 CFR § 1.98(d).

Respectfully submitted,

  
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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 101614-00020	SERIAL NO.
LIST OF REFERENCES CITED BY APPLICANT  (Use several sheets if necessary)		APPLICANT KILGER et al.	
		FILING DATE Filed Herewith	GROUP

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA	4,683,202	July 28, 1987	Mullis			Oct. 25, 1985
	AB	4,962,020	Oct. 9, 1990	Tabor et al.			July 12, 1988
	AC	5,075,216	Dec. 24, 1991	Innis et al.			Sept. 23, 1988
	AD	5,338,671	Aug. 16, 1994	Scalice et al.			Oct 7, 1992
	AE	5,409,811	Apr. 25, 1995	Tabor et al.			Apr. 16, 1992
	AF	5,427,911	June 27, 1995	Ruano			July 28, 1993

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO PART.		
	AG	96/41014	Dec. 19, 1996	WO					
	AH	96/10640	Apr. 11, 1996	WO					
	AI	94/26766	Nov. 24, 1994	WO					
	AJ	0 727 496	Aug. 21, 1996	EP					
	AK	0 771 870	May 7, 1997	EP					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	AL	Chemical Abstracts, Vol. 125, No. 25, 1996, pg. 393, 125:319052
	AM	Tabor et al., Proc. Natl. Acad. Sci. USA, Vol. 92, pp. 6339-6343, July 1995, "A single residue in DNA polymerases of the Escherichia coli DNA polymerase I family is critical for distinguishing between deoxy-and dideoxyribonucleotides".
	AN	Kilger et al., Nucleic Acids Research, vol. 25, no. 10, May 1997, pp. 2032-34, "Direct DNA sequence determination from total genomic DNA".

EXAMINER	DATE CONSIDERED
<b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AO	5,432,065	July 11, 1995	Fuller			March 30, 1993
	AP	5,512,462	Apr. 30, 1996	Cheng			Feb. 25, 1994
	AQ	5,556,772	Sept. 17, 1996	Sorge et al.			Feb. 16, 1994
	AR	5,587,287	Dec. 24, 1996	Scalice et al.			April 7, 1994
	AS	5,614,365	Mar. 25, 1997	Tabor et al.			Nov. 10, 1994
	AT	5,693,517	Dec. 2, 1997	Gelfand et al.			Feb. 2, 1995
	AU	5,789,168	Aug. 4, 1998	Leushner et al.			May 1, 1996
	AV	5,830,657	Nov. 3, 1998	Leushner et al.			July 19, 1996
	AW	5,928,906	July 27, 1999	Koster et al.			May 9, 1996

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		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION		
							YES	NO	PART.

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	AX	Hwang et al., Analytical Biochemistry, vol. 231, no. 2, November 1995, pp. 460-3, "Direct automated sequencing of single lambda-phage plaques by exponential amplification sequencing".
	AY	Amersham User Manual, US 78500, pp. 1-41, 1995
	AZ	Amersham Catalog, p. 368, 1996

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		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO PART.		
	BA	93/02212	Feb. 4, 1993	WO					
	BB	97/42348	Nov. 13, 1997	WO					
	BC	97/40939	Nov. 6, 1997	WO					
	BD	97/23650	July 3, 1997	WO					
	BE	97/41257	Nov. 6, 1997	WO					
	BF	97/41258	Nov. 6, 1997	WO					
	BG	97/41259	Nov. 6, 1997	WO					

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	BH	Sarkar et al., Nucleic Acids Research, 1995, vol. 23, no. 7, pp. 1269-1270, "Semi Exponential cycle sequencing".
	BI	Kilger et al., Biol. Chem., Vol. 378, pp. 99-105, February 1997, "Direct exponential Amplification and Sequencing (DEXAS) of Genomic DNA".
	BJ	Deng et al., Journal of Microbiological Methods, Vol. 17 (1993), 103-113, "Simultaneous amplification and sequencing of genomic DNA (SAS)...".
	BK	Rao, Analytical Biochemistry, Vol. 216, 1-14 (1994), "Direct Sequencing of Polymerase Chain Reaction-Amplified DNA".

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